

**Notice of Allowability**

Application No.

10/796,430

Examiner

Magid Y. Dimyan

Applicant(s)

HOU ET AL.

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 01 August 2006.
2. ☒ The allowed claim(s) is/are 1-5, 7-15, 17-21 and 24-25 (renumbered per 37 CFR 1.126).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

A. M. Thompson  
Primary Examiner  
Technology Center 2800

### **DETAILED ACTION**

1. This is regarding the Amendments to the Claims, and Remarks, filed 01 August 2006. It is acknowledged that Applicants have amended independent claims 1, 11 and 21 to include the allowable subject matter of dependent claims 6, 16 and 23, respectively. Claims 6, 16, 22 and 23 have been cancelled. Claims 1 – 5, 7 – 15, 17 – 21 and 24 – 25 are thus pending in this Application.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Daniel R. McClure (Reg. No. 36,962) on 08 August 2006.

The application has been amended as follows:

- Claim 1, line 2, insert --steps of-- after "comprising"; Claim 1, line 4, insert --line-- before "is"; claim 1, line 6, delete "thereafter calculating" and insert --calculating thereafter--; claim 1, line 7, delete "thereafter comparing" and insert --comparing thereafter--; claim 1, line 8, delete "thereafter updating" and insert --updating thereafter--; claim 1, line 11, delete "thereafter repeating" and insert --repeating thereafter--.
- Claim 3, line 1, delete "steps" and insert --step--.

- Claim 11, line 1, insert --steps of-- after “comprising”; claim 11, line 2, insert --of-- before “circuit elements”; claim 11, line 7, delete “thereafter calculating” and insert --calculating thereafter--; claim 11, line 8, delete “thereafter comparing” and insert --comparing thereafter--; claim 11, line 10, delete “thereafter updating” and insert --updating thereafter--; claim 11, line 14, delete “thereafter repeating” and insert --repeating thereafter--.
- Claim 21, line 4, insert --comprising a second set of metal lines-- before “coupled”; claim 21, line 4, delete “via or numbers of vias” and insert --first via or number of vias--; claim 21, line 5, delete “said heat sink comprises a” and insert --the--; claim 21, line 5, delete “that”; claim 21, line 6, delete “vias or numbers of vias” and insert --a second via or number of vias--; claim 21, line 8, delete “lines;” and insert --lines.--.

### ***Allowable Subject Matter***

3. Claims 1 – 5, 7 – 15, 17 – 21 and 24 – 25 are allowed.
4. The following is an examiner's statement of reasons for allowance: Applicants have amended independent claims 1, 11 and 21 to include the allowable subject matter of dependent claims 6, 16 and 23. The reasons for the allowable subject matter were given in the Office Action filed 03 May 2006. Prior art does not teach, or fairly suggest, the claimed limitations pertaining to signal routing structure that depends on Joule heating estimates, and may also use a heat sink coupled to a metal line.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magid Y. Dimyan whose telephone number is (571) 272-1889. The examiner can normally be reached on Monday - Friday 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on (571) 272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit 2825

myd  
16 August 2006



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